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10/805,731	03/22/2004	Eric B. Watson	MSFT121738	9571

			EXAMINER
26389	7590	10/30/2006	STACE, BRENT S

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ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/805,731	WATSON ET AL.
	Examiner	Art Unit	
	Brent S. Stace	2161	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 March 2004</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-66</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>22 March 2004</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/23/04, 8/29/05, 10/21/05</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Remarks

1.   Claims 1-66 have been examined. Claims 1-66 have been rejected. This document is the first Office action on the merits.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on 8/23/04, 8/29/05, and 10/21/05 are being considered by the examiner.

3.   The examiner would like to note that the U.S. Patent Application Publication Numbers for the IDS filed on 8/29/05 are invalid. It appears one leading 0 is missing from all of their numbers.

Drawings

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "214" in Fig. 2 has been used to designate both corrective/adjustment action and expected relevance data (Fig. 2 and Fig. 5B). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 412, 414 of Fig. 4A/B and 518 of Fig. 5B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "116" has been used to designate both the Internet (Fig. 1) and Relevance Schema Database (Fig. 5A). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the

figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "200" has been used to designate both an automated relevance optimizer system (Fig. 2) and an automated relevance optimizer method (Fig. 5A/B). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "108" has been used to designate both Search Terms (Fig. 1) and Search Results (Fig. 5B). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "112" has been used to designate both Search Engine Server (Fig. 1) and Relevance Schema database (Fig. 5B). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or

remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Claim Rejections - 35 USC § 101

10.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11.   Claims 23-66 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

12.   Claims 23-44 lack a useful, concrete, and tangible result because the system

appears to be directed at software per se which is functional descriptive material per se

that is non-statutory subject matter.

13.   Claim 45 is rejected under 35 U.S.C. 101 because it is not limited to tangible

embodiments. The media is not limited to tangible embodiments, media can be defined

as including both tangible embodiments (e.g., Hard disks) and intangible embodiments

(e.g., signals). As such, the claim is not limited to statutory subject matter and is

therefore non-statutory. The claim will be favorably considered if the instructions were

recited as being stored on the media. Claims 46-66 inherit the deficiencies of Claim 45

and fail to cure them.

14.   To expedite a complete examination of the instant application, the claims

rejected under 35 U.S.C. 101 above are further rejected as set forth below in

anticipation of applicant amending these claims to place them within the four statutory

categories of invention.

Claim Rejections - 35 USC § 112

15.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

16.   Claims 4, 5, 26-32, and 44-66 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

17.   Regarding Claims 4, 5, 26, 27, 48, and 49 the phrase "substantially" renders the

claim(s) indefinite because the scope of the claim(s) is unascertainable. This rejection

propagates downward through dependent Claims 28-32.

18.   Claim 44 recites the limitation "wherein the action to adjust the operation of the

search engine in real time" in lines 1-2. There is insufficient antecedent basis for this

limitation in the claim.

19.   Regarding Claim 45 the phrase "unfavorably" renders the claim(s) indefinite

because the scope of the claim(s) is unascertainable. This rejection propagates

downward through dependent Claims 46-66.

Claim Rejections - 35 USC § 103

20.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

21.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

22.   Claims 1, 3, 23, 25-27, 38, 40, 42-45, 47-49, 59, 60, 62, and 64-66 are rejected

under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication

No. 2005/0080771 (Fish) in view of U.S. Patent No. 6,360,227 (Aggarwal et al.), further

in view of U.S. Patent No. 6,326,962 (Szabo).

For **Claim 1**, Fish teaches: "A method for automating the optimization of search

results [Fish, paragraphs [0047] and [0074]] displayed in a search Web page, [Fish,

paragraphs [0077] and [0129]] the method comprising:

- collecting data that represents a performance of a search result, the data

  originating from at least one of a plurality of sources of performance data; [Fish,

  paragraph [0047]]...

- diagnosing at least one possible cause for an under performing search result"

  [Fish, paragraphs [0077]-[0078]].

  Fish discloses the above limitations but does not expressly teach:

- "...normalizing the collected data in accordance with a relative importance of the

  source of the data;

- comparing the normalized performance data to an expected performance data

  for the search result;

- ...adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance."

  With respect to Claim 1, an analogous art, Aggarwal, teaches:

- "...normalizing the collected data in accordance with a relative importance of the source of the data" [Aggarwal, col. 5, lines 14-24].

  With respect to Claim 1, an analogous art, Szabo, teaches:

- "...comparing the normalized performance data to an expected performance data for the search result; [Szabo, cols. 24-25, lines 58-13]

- ...adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance" [Szabo, cols. 24-25, lines 58-13].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Aggarwal, Szabo, and Fish before him/her to combine Aggarwal and Szabo with Fish because the inventions are directed towards searching for data using databases.

Aggarwal and Szabo's inventions would have been expected to successfully work well with Fish's invention because the inventions use computers attached to a network for searching a database. Fish discloses a search enhancement system with information from a selected source comprising searching for data and correlating it with external source(s) to improve search results. However, Fish does not expressly disclose normalizing data from external sources, comparing the search results with expected results, or (explicitly) adjusting the operation of the search engine to improve

search results. Aggarwal discloses a system and method for generating taxonomies

with applications for content-based recommendations comprising, essentially, unlimited

normalizing functions, based on weights. Szabo discloses a graphic user interface for

database system comprising comparing performance data of a search result and

adjusting an operation of the search engine to improve search results.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Aggarwal, Szabo, and Fish before him/her to take the

normalizing from Aggarwal and the comparing the search results and the adjusting of

the search engine from Szabo and install them into the invention of Fish, thereby

offering the obvious advantage of obtaining high quality search results based from the

user query.

Claim 3 can be mapped to Fish (as modified by Aggarwal and Szabo) as follows:

"The method of claim 1, wherein normalizing the collected data in accordance with a

relative importance of the source of the data includes giving greater weight to the data

from the more important sources and combining the data to reflect the relative

importance of the source from which the data originated" [Aggarwal, col. 5, lines 14-24].

Claims 23 and 25's limitation(s) have already been met by Claims 1 and 3's

limitation(s), respectfully in addition to a system and some elements for performing the

method steps of Claim 1 and 3. Therefore, Claims 23 and 25 are rejected for the same

reason(s) as stated above with respect to Claims 1 and 3, respectfully.

Claim 26 can be mapped to Fish (as modified by Aggarwal and Szabo) as

follows: "The system of claim 25, wherein the diagnostic process compares the

performance of the search result as represented by the normalized collected

performance data to an expected performance of the search result; and further, wherein

the comparison is unfavorable when the performance is lower than or substantially

lower than the expected performance" [Szabo, cols. 24-25, lines 58-13].

Claim 27 can be mapped to Fish (as modified by Aggarwal and Szabo) as

follows: "The system of claim 25, wherein the most important source of data is implicit

performance data, and normalizing the collected data includes giving implicit

performance data substantially greater weight when combining the data" [Aggarwal, col.

5, lines 14-24].

Claim 38 can be mapped to Fish (as modified by Aggarwal and Szabo) as

follows: "The system of claim 23, wherein the adjustment process to generate an output

data representing an action to automatically adjust an operation of the search engine,

includes generating output data that represents an action to modify the search engine's

search schema, wherein the modified search schema changes the way the search

engine generates a search result for a search term, including at least one of reranking,

removing, and replacing the search result" [Szabo, cols. 24-25, lines 58-13].

Claim 40 can be mapped to Fish (as modified by Aggarwal and Szabo) as

follows: "The system of claim 23, wherein the adjustment process to generate an output

data representing an action to automatically adjust an operation of the search engine,

includes generating output data that represents an action to increase the search

engine's spellchecker tolerance" [Szabo, col. 21, lines 25-40, specifically lines 36-40

with Szabo, cols. 24-25, lines 58-13].

Claim 42 can be mapped to Fish (as modified by Aggarwal and Szabo) as follows: "The system of claim 23, wherein the adjustment process to generate an output data representing an action to automatically adjust an operation of the search engine, includes generating output data that represents an action to temporarily adjust the operation of the search engine, and to further determine whether the temporary adjustment has actually improved the search result performance before generating an action to permanently adjust the operation of the search engine" [Szabo, cols. 24-25, lines 58-13].

Claim 43 can be mapped to Fish (as modified by Aggarwal and Szabo) as follows: "The system of claim 23, wherein the adjustment process to generate an output data representing an action to automatically adjust an operation of the search engine, includes generating output data that represents an action to adjust the operation of the search engine in real time" [Szabo, col. 26, lines 27-36].

Claim 44 can be mapped to Fish (as modified by Aggarwal and Szabo) as follows: "The system of claim 42, wherein the action to adjust the operation of the search engine in real time includes an action to intercept the search result generated by the search engine and to further modify the search result before the search engine displays the search result to the user" [Szabo, col. 26, lines 27-36].

Claims 45 and 47-49's limitation(s) have already been met by Claims 23 and 25-27's limitation(s), respectfully. Therefore, Claims 45 and 47- 49 are rejected for the same reason(s) as stated above with respect to Claims 23 and 25-27, respectfully.

Claim 59 can be mapped to Fish (as modified by Aggarwal and Szabo) as follows: "The computer-accessible media of claim 45, wherein the instruction to diagnose at least one possible reason why the search result performance compares unfavorably to the expected performance includes an instruction to determine at least one of whether the search result is no longer valid, whether the search result appears in a poor location, whether a search term that generated the search result is easily misspelled, whether the search term is too broad to generate a meaningful result, and whether a search for the search term should be constrained to a specific resource" [Fish, paragraphs [0077]-[0078] with Szabo, cols. 24-25, lines 58-13].

Claims 60, 62, and 64-66's limitation(s) have already been met by Claims 38, 40, and 42-44's limitation(s), respectfully. Therefore, Claims 60, 62, and 64-66 are rejected for the same reason(s) as stated above with respect to Claims 38, 40, and 42-44, respectfully.

23.   Claims 2, 4-22, 28-37, 39, 41, 46, 50-58, 61, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0080771 (Fish) in view of U.S. Patent No. 6,360,227 (Aggarwal et al.), in view of U.S. Patent No. 6,326,962 (Szabo), further in view of U.S. Patent No. 2003/0172075 (Reisman).

For **Claim 2**, Fish (as modified by Aggarwal and Szabo) teaches: "The method of claim 1, wherein the at least one of the plurality of sources of performance data includes

one of a relevance verification data, [Szabo, col. 25, lines 14-36] and a sample test

data" [Fish, paragraph [0052]].

Fish discloses the above limitations but does not expressly teach: "an implicit

performance data, an explicit performance data, a human-judged performance data."

With respect to Claim 2, an analogous art, Reisman, teaches: "an implicit

performance data, [Reisman, paragraph [0044]] an explicit performance data, [Reisman,

paragraph [0043]] a human-judged performance data" [Reisman, paragraph [0043]].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to combine Reisman with Fish (as modified by Aggarwal and

Szabo) because both inventions are directed towards improving returned search results.

Reisman's invention would have been expected to successfully work well with

Fish (as modified by Aggarwal and Szabo)'s invention because both inventions use a

database for searching and returning results to a user. Fish (as modified by Aggarwal

and Szabo) discloses a search enhancement system with information from a selected

source comprising improving search results. However, Fish (as modified by Aggarwal

and Szabo) does not expressly disclose improving search results by monitoring user

activity/interaction. Reisman discloses task/domain segmentation in applying feedback

to command control comprising obtaining multiple user interactions/feedback to aid in

obtaining improved results.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to take the user feedback from Reisman and install it into the

invention of Fish (as modified by Aggarwal and Szabo), thereby offering the obvious

advantage of learning from feedback information to improve returned search results.

Claim 4 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman)

as follows: "The method of claim 2, wherein comparing the normalized performance

data to the expected performance data includes determining that the search result is

under performing when the normalized performance is below or substantially below the

expected performance" [Szabo, cols. 24-25, lines 58-13].

Claim 5 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman)

as follows: "The method of claim 2, wherein the most important source of data is implicit

performance data, [Reisman, paragraphs [0037] and [0039]] and normalizing the

collected data includes giving implicit performance data substantially greater weight

when combining the data" [Aggarwal, col. 5, lines 14-24].

Claim 6 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman)

as follows: "The method of claim 2, wherein implicit performance data is automatically

captured when a user interacts with the search result" [Reisman, paragraph [0049]].

Claim 7 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman)

as follows: "The method of claim 6, wherein implicit performance data includes at least

one of whether the user clicked on the result, a location of the result when the user

clicked the result, and a length of time that the user browsed the result" [Reisman,

paragraph [0049]].

Claim 8 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 7, wherein implicit performance data further identifies an operation that the user performed on the result, including at least one of editing, e-mailing, printing, bookmarking, and copying" [Reisman, paragraph [0128]].

Claim 9 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 6, wherein implicit performance data includes captured data that has been aggregated across multiple interactions with the search result" [Reisman, paragraph [0044]].

Claim 10 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 6, wherein implicit performance data includes captured data that has been aggregated across multiple users interacting with the search result" [Reisman, paragraph [0044]].

Claim 11 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein explicit performance data includes data obtained from user response to a search engine operator-generated inquiry about the search result, wherein the inquiry includes one of an on-line inquiry and a telephone inquiry" [Reisman, paragraph [0043]].

Claim 12 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein human-judged performance data includes data obtained from a human evaluation of the search result" [Reisman, paragraph [0043]].

Claim 13 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein relevance verification data includes data obtained from a verification test of the search result's relevance to verify whether a search result having a known relevance is still included in the search result generated by the search engine" [Szabo, col. 25, lines 14-36].

Claim 14 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein sample test data includes data obtained from a test of the search result's relevance performed on a sample of a subset of users" [Fish, paragraphs [0052]-[0055]].

Claim 15 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein diagnosing at least one possible cause for an under performing search result includes considering at least one of whether the search result is no longer valid, whether the search result appears in a poor location, whether a search term that generated the search result is easily misspelled, whether the search term is too broad to generate a meaningful result, and whether a search for the search term should be constrained to a specific resource" [Fish, paragraphs [0077]-[0078] with Szabo, cols. 24-25, lines 58-13].

Claim 16 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes modifying the search engine's search schema to change the search result generated for the search term, including at least

one of reranking, removing, and replacing the search results" [Szabo, cols. 24-25, lines 58-13].

Claim 17 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes modifying the search engine's search schema to augment a presentation of the search results generated for the search term, including at least one of highlighting, animating, enlarging, and repositioning an appearance of the search result on a search results web page" [Reisman, paragraph [0038]].

Claim 18 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes increasing the search engine's spellchecker tolerance" [Szabo, col. 21, lines 25-40, specifically lines 36-40 with Szabo, cols. 24-25, lines 58-13].

Claim 19 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes prompting the user to one of clarify or narrow the search term with an additional user input" [Reisman, paragraph [0043]].

Claim 20 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes temporarily adjusting the operation of the search engine, and determining whether the adjustments have actually improved the search result performance before permanently adjusting the operation of the search engine" [Szabo, cols. 24-25, lines 58-13].

Claim 21 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 2, wherein adjusting an operation of a search engine that produced the search result in accordance with the diagnosis to improve the search result performance, includes adjusting the operation of the search engine in real time" [Szabo, col. 26, lines 27-36].

Claim 22 can be mapped to Fish (as modified by Aggarwal, Szabo, and Reisman) as follows: "The method of claim 21, wherein adjusting the operation of the search engine in real time includes intercepting the search result generated by the search engine and modifying the search result before the search engine displays the search result to the user" [Szabo, col. 26, lines 27-36].

For **Claim 28**, Fish (as modified by Aggarwal and Szabo) teaches: "The system of claim 27, wherein."

Fish (as modified by Aggarwal and Szabo) discloses the above limitation but does not expressly teach: "...implicit performance data is automatically captured when a user interacts with the search result."

With respect to Claim 28, an analogous art, Reisman, teaches: "...implicit performance data is automatically captured when a user interacts with the search result" [Reisman, paragraph [0049]].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reisman and Fish (as modified by Aggarwal and Szabo) before him/her to combine Reisman with Fish (as modified by Aggarwal and Szabo) because both inventions are directed towards improving returned search results.

Reisman's invention would have been expected to successfully work well with Fish (as modified by Aggarwal and Szabo)'s invention because both inventions use a database for searching and returning results to a user. Fish (as modified by Aggarwal and Szabo) discloses a search enhancement system with information from a selected source comprising improving search results. However, Fish (as modified by Aggarwal and Szabo) does not expressly disclose improving search results by monitoring user activity/interaction. Reisman discloses task/domain segmentation in applying feedback to command control comprising obtaining multiple user interactions/feedback to aid in obtaining improved results.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reisman and Fish (as modified by Aggarwal and Szabo) before him/her to take the user feedback from Reisman and install it into the invention of Fish (as modified by Aggarwal and Szabo), thereby offering the obvious advantage of learning from feedback information to improve returned search results.

Claims 29-37's limitation(s) have already been met by Claims 7-15's

limitation(s), respectfully. Therefore, Claims 29-37 are rejected for the same reason(s)

as stated above with respect to Claims 7-15, respectfully.

For **Claim 39**, Fish (as modified by Aggarwal and Szabo) teaches: "The system of

claim 23, wherein the adjustment process to generate an output data representing an

action to automatically adjust an operation of the search engine, includes generating

output data."

Fish (as modified by Aggarwal and Szabo) discloses the above limitation but

does not expressly teach: "...that represents an action to modify the search engine's

search schema, wherein the modified search schema augments the way the search

engine presents the search result for a search term, including at least one of

highlighting, animating, enlarging, and repositioning an appearance of the search result

on a search result Web page."

With respect to Claim 39, an analogous art, Reisman, teaches: "...that

represents an action to modify the search engine's search schema, wherein the

modified search schema augments the way the search engine presents the search

result for a search term, including at least one of highlighting, animating, enlarging, and

repositioning an appearance of the search result on a search result Web page"

[Reisman, paragraph [0038]].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to combine Reisman with Fish (as modified by Aggarwal and

Szabo) because both inventions are directed towards improving returned search results.

Reisman's invention would have been expected to successfully work well with

Fish (as modified by Aggarwal and Szabo)'s invention because both inventions use a

database for searching and returning results to a user. Fish (as modified by Aggarwal

and Szabo) discloses a search enhancement system with information from a selected

source comprising improving search results. However, Fish (as modified by Aggarwal

and Szabo) does not expressly disclose repositioning an appearance of the search

result on a search result Web page. Reisman discloses task/domain segmentation in

applying feedback to command control comprising repositioning an appearance of the

search result on a search result Web page.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to take the repositioning an appearance of the search result on a

search result Web page from Reisman and install it into the invention of Fish (as

modified by Aggarwal and Szabo), thereby offering the obvious advantage of learning

from feedback information to improve returned search results, specifically, improving

search results by showing popular search results more prominently.

For **Claim 41**, Fish (as modified by Aggarwal and Szabo) teaches: "The system of

claim 23, wherein the adjustment process to generate an output data representing an

action to automatically adjust an operation of the search engine, includes generating

output data."

Fish (as modified by Aggarwal and Szabo) discloses the above limitation but

does not expressly teach: "…that represents an action to prompt the user to one of

clarify or narrow the search term with an additional user input."

With respect to Claim 41, an analogous art, Fish (as modified by Aggarwal and

Szabo), teaches: "…that represents an action to prompt the user to one of clarify or

narrow the search term with an additional user input" [Reisman, paragraph [0043]].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to combine Reisman with Fish (as modified by Aggarwal and

Szabo) because both inventions are directed towards improving returned search results.

Reisman's invention would have been expected to successfully work well with

Fish (as modified by Aggarwal and Szabo)'s invention because both inventions use a

database for searching and returning results to a user. Fish (as modified by Aggarwal

and Szabo) discloses a search enhancement system with information from a selected

source comprising improving search results. However, Fish (as modified by Aggarwal

and Szabo) does not expressly disclose an action to prompt the user to one of clarify or

narrow the search term with an additional user input. Reisman discloses task/domain

segmentation in applying feedback to command control comprising an action to prompt

the user to one of clarify or narrow the search term with an additional user input.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reisman and Fish (as modified by Aggarwal and

Szabo) before him/her to take the action to prompt the user to one of clarify or narrow

the search term with an additional user input from Reisman and install it into the invention of Fish (as modified by Aggarwal and Szabo), thereby offering the obvious advantage of learning from feedback information to improve returned search results, specifically, improving search results by further specifying the search.

Claims 46 and 50-58's limitation(s) have already been met by Claims 24 and 28-36's limitation(s), respectfully. Therefore, Claims 46 and 50-58 are rejected for the same reason(s) as stated above with respect to Claims 24 and 28-36, respectfully.

Claims 61 and 63's limitation(s) have already been met by Claims 39 and 41's limitation(s), respectfully. Therefore, Claims 61 and 63 are rejected for the same reason(s) as stated above with respect to Claims 39 and 41, respectfully

Conclusion

24.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Applicant is advised that, although not used in the rejections

above, prior art cited on the PTO-892 form and not relied upon is considered materially

relevant to the applicant's claimed invention and/or portions of the claimed invention.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brent S. Stace whose telephone number is 571-272-

8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F

9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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Brent Stace *B.S.*